

1/46

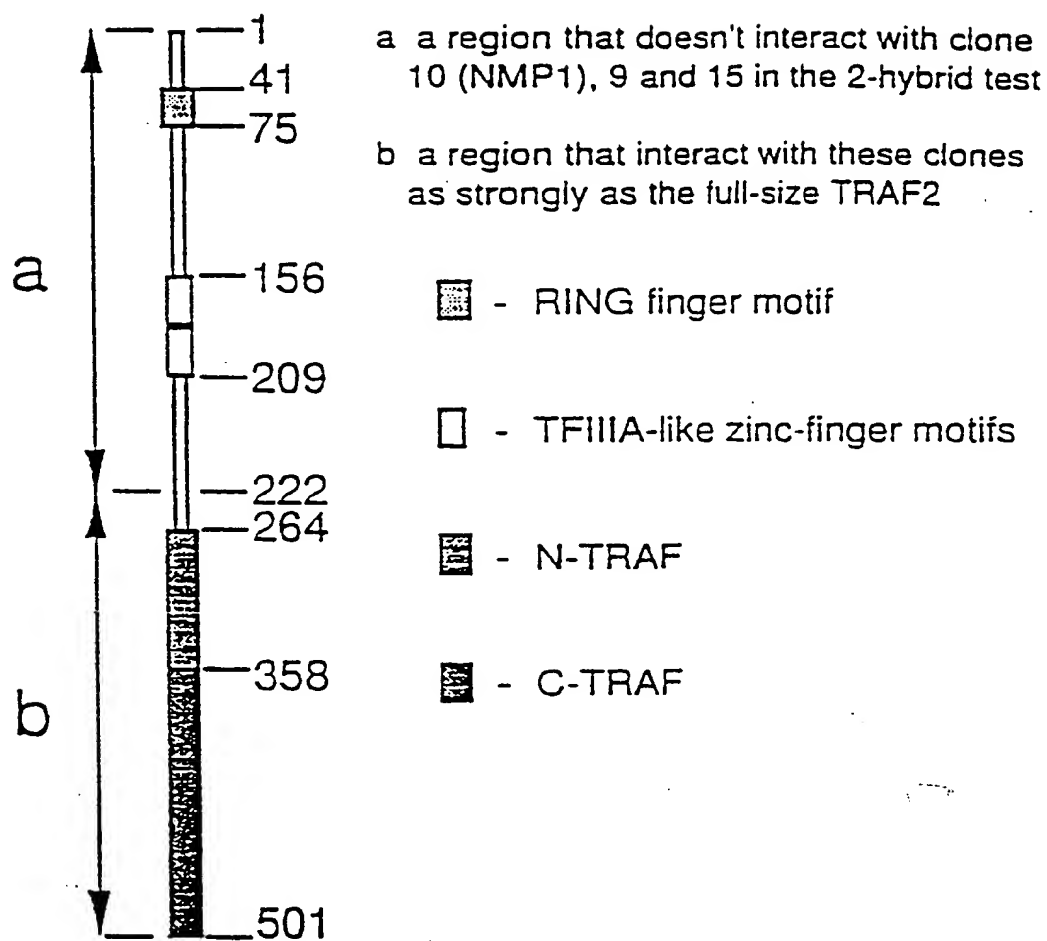


FIG. 1

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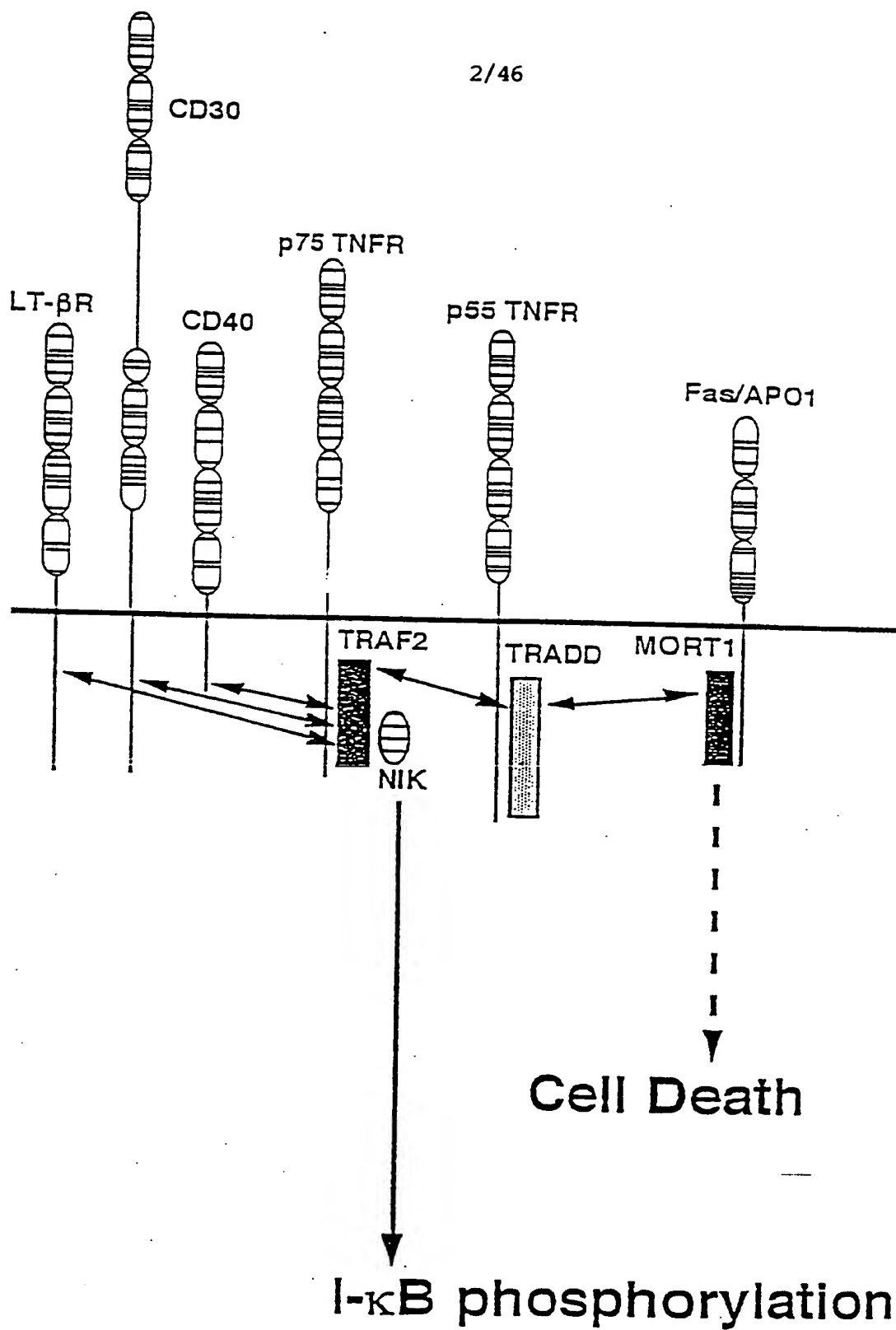


FIG. 2A

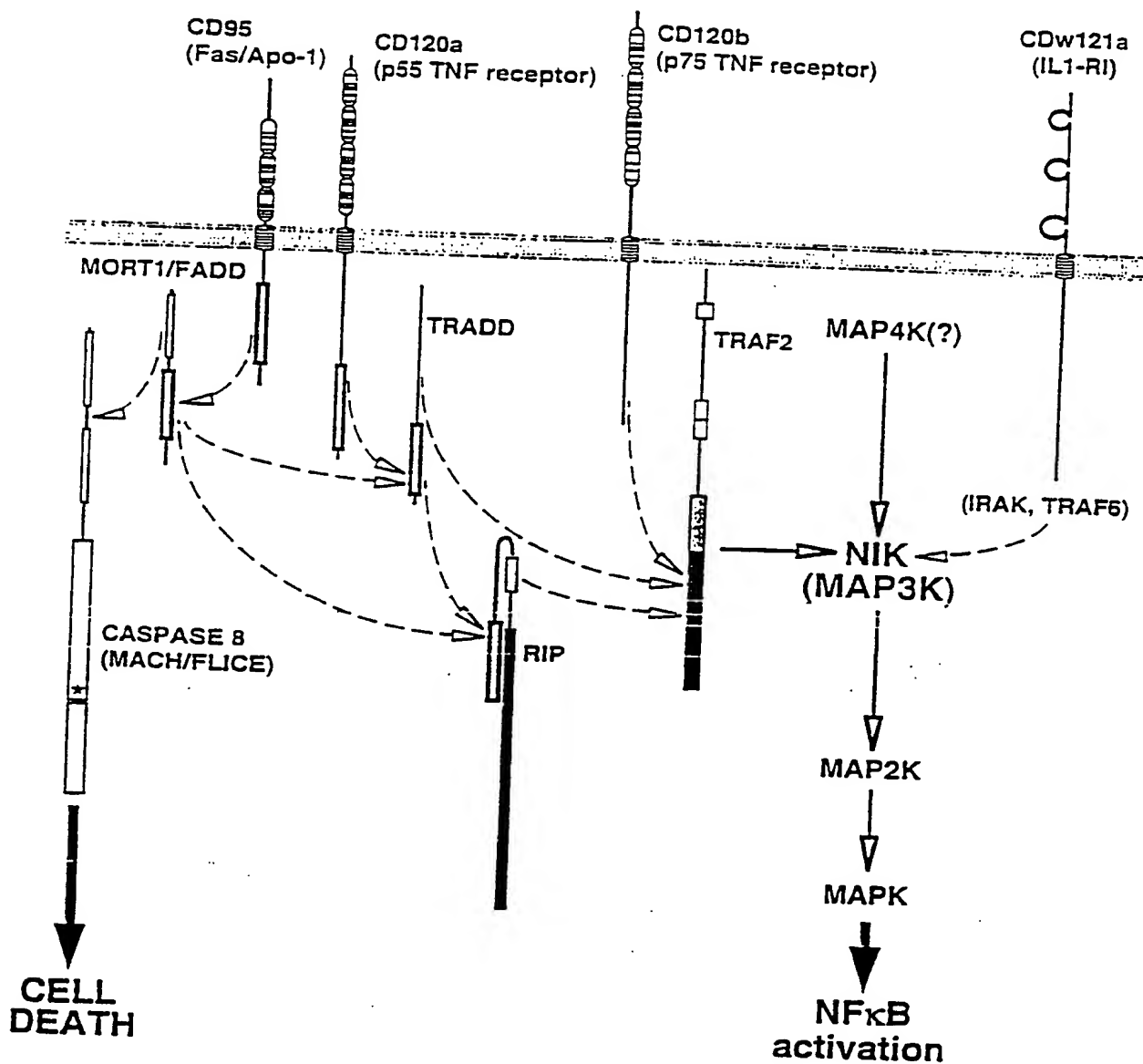


FIG. 2B

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Length: 1906 July 7, 1996 12:35 Type: N Check: 7122 ..

1 CATTGGGTCA CGCGGTGGCG GCGCTCTAGA ATAGTGGATC CCCCgggGCTG
51 CAGGAATTCTG ATTCGAGGCC ACGAAGGCCG GCGGCGCGGC GCAnGCACCG
101 GCCCCGGGGAn AGGCnCCATG AGCGGATCnC nGAACnATGA CAAAAGACAA
151 TTTCTGCTGG AGCGACTGCT GGATGCAGTG AAACAGTGCC AGATCCGCTT
201 TnGAGGGAGA AAGGAGATTG CCTCGGATTC CGACAGCAGG GTCACCTGTC
251 TGTGTGCCCA GTTTGAAGCC GTCCTGCAGC ATGGCTTGAA GAGGAGTCGA
301 GGATTGGCAC TCACAGCGGC AGCGATCAAG CAGGCAGCGG GCTTTGCCAG
351 CAAAACCGAA ACAGAGCCCCG TGTTCCTGGTA CTACGTGAAG GAGGTCTCTCA
401 ACAAGCACGA GCTGCAGCGC TTCTACTCCC TGCGCCACAT CGCCTCAGAC
451 gTGGGCCGGG GTCGCGCCTG GCTGcGCTGT GCCCTCAACG AACACTCCCT
501 GGAGCGCTAC CTGCACATGC TCCTGGCCGA CCGCTGCAGG CTGAGCACTT
551 TTTATGAAGA CTGGTCTTTT GTGATGGaTG AAGAAAGGTC CAGTATGCTT
601 CCTACCATGG CAGCAGGTCT GAACTCCATA CTCTTTGCGA TTAACATCGA
651 CAACAAGGAT TTGAACGGGC AGAGTAAGTT TGCTCCCACC GTTTCAGACC
701 TCTTAAAGGA GTCAACGCAG AACGTGACCT CCTTGCTGAA GGAGTCCACG
751 CAAGGAGtGA GCAGCCTGTT CAGGGAGATC ACAGcCTcCT cTGCCGTcTC
801 CATCcTCATC AAACCTGAAC AGGAGACCGA CCCTTGcCTG TCGTGTCCAG
851 GAATGTCAGT GCTGATGCCA AATGCAAAAA GGAGCGGAAG AAGAAAAAGA

FIG. 3A

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901 AAGTGACCAA CATAATCTCA TTTGATGATG AGGAAGATGA GCAGAACTCT
951 GGGGACGTGT TTAAAAAGAC ACCTGGGGCA GGGGAGAGCT CAGAGGACAA
1001 CTCCGACCGC TCCTCTGTCA ATATCATGTC CGCCTTTGAA AGCCCCCTTCG
1051 GGCCTAACTC CAATGGAATC AGAGCAGCAA CTCATGGAAA ATTGATTCCC
1101 TGTCTTTGAA CGGGGAGTTT GGGTACCAGA AGCTTGATGT GAAAAGCATC
1151 GAtGAtGAAG ATgTGGATGA AAACGAAGAT GACgTGTATG GAAACTCATC
1201 AGGAAGGAAG CACAGGGGCC ACTCGGAGTC GCCCGAGAAG CCACTGGAAG
1251 GGAACACCTg CCTCTCCcAG ATGCACAGCT GGgCtCCGCT GAAGgTgCTG
1301 CaCaATGACT CCGACATCCT CTTCCCTGTC AGTGGCGTGG gCTCCTACAG
1351 CCCAGCAGAT gCCCCCCTCG GAAGCCTGGA GAACGGGACA GGACCAGAGG
1401 ACCACGTTCT CCCGGATCCT GGACTTCGGT ACAGTGTGGA AGCCAGCTCT

FIG. 3B

1451 CCAGGCCACG GAAGTCCTCT GAGCAGCCTG TTACTTCTGC CTCAGTGCCA
1501 GAGTCCATGA CAATTAGTGA ACTGCGCCAG GCCACTGTGG CCATGATGAA
1551 CAGGAAGGAT GAGCTGGAGG AGGAGAACAG ATCACTGCGA AACCTGCTCG
1601 ACGGTGAGAT GGAGCACTCA GCCGCGCTCC GGCAAGAGGT GGACACCTTG
1651 AAAAGGAAGG TGGCTGAACA GGAGGAGCGG CAGGGCATGA AGGTCCAGGC
1701 GCTGGCCAGC TATCTTTGCT ATTTTGTGAG GAGATTCTAA CCCCACGTGA
1751 GAACCATGTG GTGGAGAAAT GGAGGGAGAG AGAAATCCAA CAGTTCCTGA
1801 TAGTCTCATT TGAGCTCCTG GATCCAGTCT TTCCTGAAGC TGTGTTTCCT
1851 CTGGACTTTT CATGTATGTG AGCCAATAAA TTGCTTTCAT TCCTTGAAAA
1901 AAAAAA

FIG. 3C

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TRANSLATE of: 9hhh check: 7122 from: 1 to: 1906
generated symbols 1 to: 635.

9hhh.pep Length: 604 August 23, 1996 15:03 Type: P Check: 4554

1 XTGPGXGXMS GSXNXDKRQF LLERLLDAVK QCQIRFXGRK EIASDSDSRV
51 TCLCAQFEAV LQHGLKRSRG LALTA AAIKQ AAGFASKTET EPVFWYYVKE
101 VLNKHELQRF YSLRHASDV GRGRAWLRCA LNEHSLERYL HMLLADRCRL
151 STFYEDWSFV MDEERSSMLP TMAAGLNSIL FAINIDNKDL NGQSKFAPTV
201 SDLLKESTQN VTSLLKESTQ GVSSLFREIT ASSAVSILIK PEQETDFCLS
251 CPGMSVLMPN AKRSGRRKRK *PT*SHLMMR KMSRTLGTCL KRHLGQGRAQ
301 RTTPTAPLSI SCPPLKAPSG LTPMESEQQL MEN*FPVFER GVWVPEA*CE
351 KHR**RCG*K RR*RVWKLIR KEAQGPLGVA REATGREHLP LPDAQLGSAE
401 GAAQ*LRHPL PCQWRGLLQP SRCPPRKEGE RDRTRGFRSP GSWTSVQCGS
451 QLSRPRKSSE QPVTSASVPE SMTISELRQA TVAMMNRKDE LEEENRSLRN
501 LLDGEMEHS AALRQEVDTLK RKVAEQEERQ GMKVQALASY LCYFVRRF*P
551 HVRTMWWRNG GREKSNSS** SHLSSWIQSF LKLCFLWTFH VCEPINCFHS
601 LKKK

FIG. 3D

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clone 10 Length: 2631 August 23, 1996 17:18 Type: N Check: 5107 ..

1 CCCcTcTcAC AGCCcAgGCC ATCCAAGAGG GgCTGAGGAA AGAGCCCATC
51 cACCGcGTGT cTGCAGcGGA GcTGGGAGGG AAGGTGAACC GGGCAcTACA
101 GCAAGTGGGA GGTcTGAAGA GCCCTTGGAG GGGAGAATAT AAAGAACCAA
151 GACATCCACc GCCAAATCAA GCCaAtTACC ACCAGACCcT CcATGCCcAg
201 CCGAGAGAGc TtTcGCCAAG GGCCcAGGG CCCCggCCAg CTGAGGAGAC
251 AACAggCAGA GCCCcTAAGc TCCAGCcTCC TcTCCCACCA GAGCCCCCAG
301 AGCCaAACAA GTcTCCTCCC ttGACTttGA GCAAGGAGGA GTcTGGGATG
351 TGGGAACCCCT TACcTcTGTc cTCCCTGGAG CCAGCCCCCTG CCAGAAACCC
401 CAGcTCACCA GAGCGGAAAG CAACCGTCCC GGAGCAGGAA CTGCAGCAGC
451 TGGAAATAGA ATTATTCCTC AACAGCCTGT CCCAGcCATT TTcTcTGGAG
501 GAGCAGGAGC AAATTCTcTc GTGCCTCAGC ATCGACAGCC TCTCCCtGTC
551 GGATGACAGT GAGAAGAACC CATCAAAGGC CTCTCAAAGC TCGCGGGACA
601 CCCTGAGCTC AGGCGTACAC TCCTGGAGCA GcCAGGCCGA GgCtCGAAGc
651 TCCAGCTGGA ACATGGTGcT GGCCCGGGg CgGCCACCG ACACCCCCAAG
701 CTATTTCAAT GGTGTGAAAG TCCAAATACA GTCTCTTAAT GGTGAACACC
751 TGCACATCCG GGAGTTCCAC CGGGTCAAAG TGGGAGACAT CGCCACTGGC
801 ATCAGCAGCC AGATCCCAGC TGCAGCCTTC AGCTTGGTCA CCAAAGACGG
851 GCAGCCTGTT CGCTACGACA TGGAGGTGCC AGACTCGGGC ATCGACCTGC
901 AGTGCACACT GGGCCCTGAT GGCAGCTTCG CCTGGAGCTG GAGGGTCAAG
951 CATGGCCAGC TGGAGAACAG GcCCTAACCC TGCCCTCCAC CGCCGGcTCC
1001 ACACTGCCGG aAAGCAGCCT TCCTGCTCGG tGCACGATGC TGCCCTGaAA
1051 AcACAGGcTC AGCcGTTCCC AgGGgATyTG .CCAGcCCCC cGGcTcArca
1101 G.tGGGaAcC AGGGccTcG. CAGC.AGC.A AGGT.gGGGG CAAGC.AGAA
1151 TGCCtCCCCAG GATTTcACA. CcTGAGCCCC. TGCCCCA.CC cTGcTgaada
1201 AAACAyT.CC GCcAcGtGAA GagAcAGaAG GAGGATGG.C AGGAgTt..A
1251 CcTygGGGAA aCaAAAcAGg gaTcTtTt.tT cTGcCCcTGc TCCAGT.cGA

FIG. 4A

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1301 gTtGGCCTG. ACCCGcTTGG A.TCAGtGAC CATTtGtTGG CAGA.CAGGG
 1351 GagAgCAGcT TCCAGCcTGG gTCAGAAGGG GTGGGcGAGC CctTcGGCCC
 1401 cTcAcCCT.c cAGGcTGcTG tG.AGAGTGT CAAGTGTGTa AGGG.CCCAA
 1451 A.cTcAGG.T TCAGTGCAGA ACCAgGT.CA GCAGGTATGC CCGCCCCG.TA
 1501 GGTAA..GG GGGCCcTcT. AAACCCCTTG cCT.GGCCT. CAcCT.GGCC
 1551 AGCTCA.CCC cTTTTGGGTG TAGGGGAAAA GAATGCCTGA CCCTGGGAAG
 1601 GCTWCCCTGG TAgaATACAC CACACTTTTC AGGTTGTTGC AACACAGGTC
 1651 CTGAGTTGAC CTCTGGTTCA GCCAAGGACC AAAGAAGGTG TGTAAGTGAA
 1701 GTGGTTCTCA gT.CCCCAgA CATgTgCCCC TTTGCTGCTG GCTACCACTC
 1751 TTCCCCAgAg CAGCAGGcCC CgAgCCCCCTT CAGGcCCAgC AcTGcCCCCAG
 1801 AcTCgCTGGC aCTCAGTTCC CTCATCTGTA AAGGTGAAGG GTGATGCAGG

 1851 ATATGCCTGA CAGGAACAGT CTGTGGAtGG AcATGATCAg TGcT.AAGG.
 1901 AAAGCAGcAG AGaGAGACgy TCcGGCGCCC CAg.CCCCAc T.ATCAGTgT
 1951 .CCAgCGTGc T.GGTT.CCC CAg.AGCACA GcT.CAg.CA TcA.CACTGA
 2001 CACT.CAcCC T.GCCcTGCC CCT.GGCCA. GAgGGTACTG CCG.ACGGCA
 2051 CTTTGCAc.T CTGATG.ACC TCAAAGCACT TTCATGgcT. GcCCTct..G
 2101 GCAGGG.CAG GG.CAGGG.C AgTGAcA.CT GTAgG.AGCA TA.gCAA.GC
 2151 CAgGAGATGG GGTG.AAGGG A.CACAGTCT TGAGCTGTCC A.CATGCATG
 2201 TGAcT.CCTC AAAcCTcTT. .CCAG.ATTT CTCTAAGAAT AGCA.CCCCC
 2251 TT.CCCCATT GCCCCAGCTT AgCCTCTTCT CCCAGGGGAG CTA.CTCAgG
 2301 ACTCACGTAg CATTAAATCA GCTGTG.AAT CGTCAGGGGG TGTCTGCTAg
 2351 CCTCAACCTC CTGGGGCaGG GGACgCCGAg ACTCCGTGGG AgAAgCTCAT
 2401 TCcCaCATCT TGCCAAgACA gCCTTT.GTC CAgCTGTCCA CATTGAgtCA
 2451 gACTGCTCCC GGGGAgAgAg cCCCGGcCCC CAgCACATAA AGAACTGCAG
 2501 CCTTGGTACT GCAGAGTCTG GGTGTAGAG AACTCTTTGT AAGCAATAAA
 2551 GTTTGGGGTG ATGACAAATG TTAaaaaaAG GCCTTCGTGG CCTCGAATCA
 2601 AGCTTATCGA TACCGTCGAC CTCGAGGGGG G

FIG. 4B

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Length: 1253 July 10, 1996 clone15

1 CATTGGAGTC ACGCGGTGGC GGCGCTCTAG AATAGTGGAT CCCCgggCTg
51 CA.GGAATTC GATTCGAGcC CACGAAGGCC CCTTCTTCTG TGGTCGCGGC
101 ACGTTTACaG CCGCAAGCAc CCAGCGGCAg CTGAAGGAGG CTTTTGAgAG
151 GCTCCTgCCC CAGGTGGAGG CGGCCCCGCAA GGCCATCCgC GCCGCTCAGG
201 TGGAGCGCTA TGTGCCCCGAA CACGAGCGAT GCTGCTGGTG CCTGTGCTGC
251 GGCTGTGAGG TGCGGGAACA CCTGAGCCAT GGAAACCTGA CGGTGCTGTA
301 CGGGGGgCTG CTGGAGCATC TGGCCAGCCC AGAGCACAAG AAAGCAACCA
351 ACAAATTCTG GTGGGAGAAC AAAGCTGAGG TCCAGATGAA AGAGAAGTTT
401 CTGGTCACTC CCCAGGATTA TGCGCGATTC AAGAAATCCA TGGTGAAAGG
451 TTTGGATTCC TATGAAGAAA AGGAGGATAA AGTGAtCAAG GAGaTGgCAG
501 CTCAGATCCG TGaGGTGGAg CAGAgCCGAC AGGAGgTGGt TCGGtCTGTc
551 TTAGAgCcTC AGGCAGTGcC AGaCCcAGAA GAGGGcTCTT CAGCAcCTAG
601 AAGCTGGAAA GGGATGAACA GCCAAGTAGc TTCCAGCTTA CAGcAGcCCT
651 CAAATTTGGA CCTGCCACCA GCTCCAGAGC TTGActGGAT GEAGACAGGA
701 CCATCTCTGA CATTcATTGG CCATCAGGAT ATACCAGGAG TTGGTAACAT
751 CCACTCAGGT GCCACACCTC CCTGGATGAT CCAAGATGAA GAATACATTG
801 CTGGGAACCA AGAAATAGGA CCATCCTATG AAGAATTTCT TAAAGAAAAG
851 GAAAAACAGA AGTTGAAAAA ACTcCCCCCA GACCGAGTTG GGGCCAACTT
901 TGATCACAGC TCCAGGACCA GTGCAGGCTG GCTGCCCTCT TTTgGGcCGC
951 GTCTGGAATA ATGGACGCCG CTGGCAGTCC AGACATCAAC TcCAAAACTG
1001 AAGCTGCAGC AATGAAGAAG CAGTCACATA CAGAAAAAAG CTAATCATGC
1051 TCTCTACCAA CTACCATGAG GCTAAAAGCC AAAGTCAACC AAACCCCTAT
1101 TATACCTTCC ACCCAAATTC TTTATCATTG TCTTTCTTAG GAAACAGACA
1151 TACTCATTCA TTTGATTTAA TAAAGTTTTA TTTTTCGGCC TTCGTGGCCT
1201 CGAATCAAGC TTATCGATAC CGtCGACCTC GAGGGGGGGC CGTACCCACT
1251 TTT

FIG. 5A

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TRANSLATE of: 15cc check: 9389 from: 2 to: 1253
generated symbols 1 to: 417.

15cc.pep Length: 417 August 23, 1996 14:32 Type: P Check: 7921 ..

1 IGVTRWRRSR IVDPRAAXNS IRAHEGPFFC GRGTFTAAS QRQLKEAFER
51 LLPQVEAARK AIRAAQVERY VPEHERCCWC LCCGCEVREH LSHGNLTVLY
101 GGLLEHLASP EHKKATNKFW WENKAEVQMK EKFLVTPQDY ARFKKSMVKG
151 LDSYEEKEDK VIKEMAAQIR EVEQSRQEVV RSVLEPQAVP DP EEGSSAPR
201 SWKGMNSQVA SSLQQPSNLD LPPAPELDWM ETGPSLTFIG HQDIPGVGNI
251 HSGATPPWMI QDEEYIAGNQ EIGPSYEEFL KEKEKQKLKK LPPDRVGANF
301 DHSSRTSAGW LPSFGPRLZ* WTPLAVQTST PKLKLQQ*RS SHIQKKANHA
351 LYQLP*G*KP KSTKPLLYLP PKFFIIVFLR KQYYSFI*FN KVLFFGLRGL
401 ESSLSIPSTS RGGRTHF

FIG. 5B

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1 AGC GGG GGG ACT GTG CCG TGT GGA ACG TGT AGC TGT TGA AGG TGG ACT CTG TTA CCA TTG
 31
 61 AGG ATG TTT GGA GGA TGA GTA TGT GTG GCA GAG GCA CAC ATA AAC AGG CAG AGA CCC TTT
 91
 121 GCC CCT GCC TTT CTC CCC CAA CCC AAG GCT GAC CTG TGT TCT CCC AGG TCT GGG ATT CTA
 151
 181 AGT GAC CTG CTC TGT GTT TGG TCT CTC TCA GGA TGA GCA CAA GCC TGG GAG ATG GCA GTG
 211
 241 ATG GAA ATG GCC TGC CCA GGT GCC CCT GGC TCA GCA GTG GGG CAG CAG AAG GAA CTC CCC
 271
 M E M A C P G A P G S A V G Q Q K E L P
 301 AAG CCA AAG GAG AAG ACG CCG CCA CTG GGG AAG AAA CAG AGC TCC GTC TAC AAG CTT GAG
 331
 K P K E K T P P L G K K Q S S V Y K L E
 361 GCC GTG GAG AAG AGC CCT GTG TTC TGC GGA AAG TGG GAG ATC CTG AAT GAC GTG ATT ACC
 391
 A V E K S P P V F C G K W E I L N D V I T
 421 AAG GGC ACA GCC AAG GAA GGC TCC GAG GCA GGG CCA GCT GCC ATC TCT ATC GCC CAG
 451
 K G T A K E G S E A G P A A I S I A Q
 481 GCT GAG TGT GAG AAT AGC CAA GAG TTC AGC CCC ACC TTT TCA GAA CGC ATT TTC ATC GCT
 511
 A C E N S Q E F S P T F S E R I F I A
 541 GGG TCC AAA CAG TAC AGC CAG TCC GAG AGT CTT GAT CAG ATC CCC AAC AAT GTG GCC CAT
 571
 G S K Q Y S S Q S E S L D Q I P N N V A H

FIG. 6A

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601 GCT ACA GAG GGC AAA ATG GCC CGT GTG TGT TGG AAG GGA AAG CGT CGC AGC AAA GCC CGG
 A T E G K M A R V C W K G K R R S K A R
 661 AAG AAA CGG AAG AAG AGC TCA AAG TCC CTG GCT CAT GCA GGA GTG GCC TTG GCC AAA
 K K R K K K S S S K S L A H A G V A L A K
 721 CCC CTC CCC AGG ACC CCT GAG CAG GAG AGC TGC ACC ATC CCA GTG CAG GAG GAT GAG TCT
 P L P R T P E Q E S C T I P V Q E D E S
 781 CCA CTC GGC GCC CCA TAT GTT AGA AAC ACC CCG CAG TTC ACC AAG CCT CTG AAG GAA CCA
 P L G A P Y V R N T P Q F T K P L K E P
 841 GGC CTT GSG CAA CTC TGT TTT AAG CAG CTT GGC GAG GGC CTA CGG CCG GCT CTG CCT CGA
 G L G Q L C F K Q L G E G L R P A L P R
 901 TCA GAA CTC CAC AAA CTG ATC AGC CCC TTG CAA TGT CTG AAC CAC GTG TGG AAA CTG CAC
 S E L H K L I S P L Q C L N H V W K L H
 961 CAC CCC CAG GAC GGA GGC CCC CTG CCC CTG CCC AGC CAC CCC TTC CCC TAT AGC AGA CTG
 H P Q D G G P L P L P T H P F P Y S R L
 1021 CCT CAT CCC TTC CCA TTC CAC CCT CTC CAG CCC TGG AAA CCT CAC CCT CTG GAG TCC TTC
 P H P F P F H P L Q P W K P H P L E S F
 1081 CTG GGC AAA CTG GCC TGT GTA GAC AGC CAG AAA CCC TTG CCT GAC CCA CAC CTG AGC AAA
 L G K L A C V D S Q K P L P D P H L S K
 1141 CTG GCC TGT GTA GAC AGT CCA AAG CCC CTG CCT GGC CCA CAC CTG GAG CCC AGC TGC CTG
 L A C V D S P K P L P G P H L E P S C L
 1201 TCT CGT GGT GCC CAT GAG AAG TTT TCT GTG GAG GAA TAC CTA GTG CAT GCT CTG CAA GGC
 S R G A H E K F S V E E Y L V H A L Q G
 1261 AGC GTG AGC TCA AGC CAG GCC CAC AGC CTG ACC AGC CTG GCC AAG ACC TGG GCA GCA CGG
 S V S S S Q A H S L T S L A K T W A A R

FIG. 6B

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SUBSTITUTE SHEET (RULE 26)

1321 GGC TCC AGA TCC CGG GAG CCC AGC CCC AAA ACT GAG GAC AAC GAG GGT GTC CTG CTC ACT
 G S R S R E P S P K T E D N E G V L L T
 1381 GAG AAA CTC AAG CCA GTG GAT TAT GAG TAC CGA GAA GTC CAC TGG GCC ACG CAC CAG
 E K L K P V D Y E Y R E E V H W A T H Q
 1441 CTC CGC CTG GGC AGA GGC TCC TTC GGA GAG GTG CAC AGG ATG GAG GAC AAG CAG ACT GGC
 L R L G R G S F G E V H R M E D K Q T G
 1501 TTC CAG TGC GCT GTC AAA AAG GTG GTC GGC CAC GTA TTT CCG GCA GAG GAG CTG ATG GCA
 F Q C A V K K V R L E V F R A E E L M A
 1561 TGT GCA GGA TTG ACC TCA CCC AGA ATT GTC CCT TTG TAT GGA GCT GTG AGA GAA GGG CCT
 C A G L T S P R I V P L Y G A V R E G P
 1621 TGG GTC AAC ATC TTC ATG GAG CTG GAA GGT GGC TCC CTG GGC CAG CTG GTC AAG GAG
 W V N I F M E L L E G G S L G Q L V K E
 1681 CAG GGC TGT CTC CCA GAG GAC CGG GCC CTG TAC TAC CTG GGC CAG GCC CTG GAG GGT CTG
 Q G C L P E D R A L Y Y L G Q A L E G L
 1741 GAA TAC CTC CAC TCA CGA AGG ATT CTG CAT GGG GAC GTC AAA GCT GAC AAC GTG CTC CTG
 E Y L H S R R I L H G D V K A D N V L L
 1801 TCC AGC GAT GGG AGC CAC GCA GCC CTC TGT GAC TTT GGC CAT GCT GTG TGT CTT CAA CCT
 S S D G S H A A L C D F G H A V C L Q P
 1861 GAT GGC CTG GGA AAG TCC TTG CTC ACA GGG GAC TAC ATC CCT GGC ACA GAG ACC CAC ATG
 D G L G K S L L T G D Y I P G T E T H M
 1921 GCT CCG GAG GTG CTG GGC AGG AGC TGC GAC GCC AAG GTG GAT GTC TGG AGC AGC TGC
 A P E V V L G R S C D A K V D V W S S C

FIG. 6C

5544070-92353750

1981 TGT ATG ATG CTG CAC ATG CTC AAC GGC TGC CAC CCC TGG ACT CAG TTC TTC CGA GGG CCG
 C M L H M L N G C H P W T Q F F R G P
 2041 CTC TGC CTC AAG ATT GCC AGC GAG CCT CCG CCT GTG AGG GAG ATC CCA CCC TCC TGC GCC
 L C L K I A S E P P P V R E I P P S C A
 2101 CCT CTC ACA GCC CAG GCC ATC CAA GAG GGG CTG AGG AAA GAG CCC ATC CAC CGC GTG TCT
 P L T A Q A I Q E G L R K E P I H R V S
 2161 GCA GCG GAG CTG GGA GGG AAG GTG AAC CCG GCA CTA CAG CAA GTG GGA GGT CTG AAG AGC
 A A E L G G K V N R A L Q Q V G G L K S
 2221 CCT TGG AGG GGA GAA TAT AAA GAA CCA AGA CAT CCA CCG CCA AAT CAA GCC AAT TAC CAC
 P W R G E Y K E P R H P P N Q A N Y H
 2281 CAG ACC CTC CAT GCC CAG CCG AGA GAG CTT TCG CCA AGG GCC CCA GGG CCC CGG CCA GCT
 Q T L H A Q P R E L S P R A P G P R P A
 2341 GAG GAG ACA ACA GGC AGA GCC CCT AAG CTC CAG CCT CCT CTC CCA CCA GAG CCC CCA GAG
 E E T T G R A P K L Q P P L P P E P P E
 2401 CCA AAC AAG TCT CCT CCC TTG ACT TTG AGC AAG GAG GAG TCT GGG ATG TGG GAA CCC TTA
 P N K S P P L T L S K E E S G M W E P L
 2461 CCT CTG TCC TCC CTG GAG CCA GCC CCT GGC AGA AAC CCC AGC TCA CCA GAG CGG AAA GCA
 P L S S L E P A P A R N P S S P E R K A
 2521 ACC GTC CCG GAG CAG GAA CTG CAG CAG CTG GAA ATA GAA TTA TTC CTC AAC AGC CTG TCC
 T V P P E Q E L Q Q L E I E L F L N S L S
 2581 CAG CCA TTT TCT CTG GAG CAG CAG CAA ATT CTC TCG TGC CTC AGC ATC GAC AGC CTC
 Q P F S L E E Q E Q I L S C L S I D S L
 2641 TCC CTG TCG GAT GAC AGT GAG AAG AAC CCA TCA AAG GCC TCT CAA AGC TCG CGG GAC ACC
 S L S D S E K N P S K A S Q S S R D T
 2701 CTG AGC TCA GGC GTA CAC TCC TGG AGC AGC CAG GCC GAG GGT CGA AGC TCC AGC TGG AAC
 L S S G V H S W S S Q A E A R S S S W N
 2761 ATG GTG CTG GCC CCG GGG CGG CCC ACC GAC ACC CCA AGC TAT TTC AAT GGT GTG AAA GTG
 M V L A R G R P T D T P S Y F N G V K V

FIG. 6D

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SUBSTITUTE SHEET (RULE 26)

2821 CAA ATA CAG TCT CTT AAT GGT GAA CAC CTG CAC ATC CGG GAG TTC CAC CGG GTC AAA GTG
 Q I Q S L N G E H L H I R E F H R V K V
 2881 GGA GAC ATC GCC ACT GGC ATC AGC AGC CAG ATC CCA GCT GCA GCC TTC AGC TTG GTC ACC
 G D I A T G I S S Q I P A A F S L V T
 2941 AAA GAC GGG CAG CCT GTT CGC TAC GAC ATG GAG GTG CCA GAC TCG GGC ATC GAC CTG CAG
 K D G Q P V R Y D M E V P D S G I D L Q
 3001 TGC ACA CTG GCC CCT GAT GGC AGC TTC GCC TGG AGC TGG AGG GTC AAG CAT GGC CAG CTG
 C T L A P D G S F A W S W R V K H G Q L
 3061 GAG AAC AGG CCC TAA CCC TGC CCT CCA CCG CCG GCT CCA CAC TGC CCG AAA GCA GGC TTC
 E N R P *
 3121 CTG CTC GGT GCA CGA TGC TGC CCT GAA AAC ACA GGC TCA GCC GTT CCC AGG GGA TTG CCA
 3181 GCC CCC CGG CTC ACA GTG GGA ACC AGG GCC TCG CAG CAG CAA GGT GGG GGC AAG CAG AAT
 3241 GCC TCC CAG GAT TTC ACA CCT GAG CCC TGC CCC ACC CTG CTG AAA AAA CAT CCG CCA CGT
 3301 GAA GAG ACA GAA GGA GGA TGG CAG GNG TTA CCT GGG GAA ACA AAA CAG GGA TCT TTT TCT
 3361 GCC CCT GCT CCA GTC GAG TTG GCC TGA CCC GCT TGG ATC AGT GAC CAT TTG TTG GCA GAC
 3421 AGG GGA GAG CAG CTT CCA GCC TGG GTC AGA AGG GGT GGG CGA GCC CTT CGG CCC CTC ACC
 3451

Fig. 9F

FIG. 6F

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4141 GGC AGG GCA GGG CAG TGA CAC TGT AGG AGC ATA GCA AGC CAG GAG ATG GGG TGA AGG GAC 4171
 4201 ACA GTC TTG AGC TGT CCA CAT GCA TGT GAC TCC TCA AAC CTC CAG ATT TCT CTA AGA 4231
 4261 ATA GCA CCC CCT TCC CCA TTG CCC CAG CTT AGC CTC TTC TCC CAG GGG AGC TAC TCA GGA 4291
 4321 CTC ACG TAG CAT TAA ATC AGC TGT GAA TCG TCA GGG GGT GTC TGC TAG CCT CAA CCT CCT 4351
 4381 GGG GCA GGG GAC GCC GAG ACT CCG TGG GAG AAG CTC ATT CCC ACA TCT TGC CAA GAC AGC 4411
 4441 CTT TGT CCA GCT GTC CAC ATT GAG TCA GAC TGC TCC CGG GGA GAG AGC CCC GGC CCC CAG 4471
 4501 CAC ATA AAG AAC TGC AGC CTT GGT ACT GCA GAG TCT GGG TTG TAG AGA ACT CTT TGT AAG 4531
 4561 CAA TAA AGT TTG GGG TGA TGA CAA ATG TTA AAA AAA 4596

FIG. 6G

FIG. 7A

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FIG. 7B

[illegible]

s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s4	.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																	
s8	133	D	K	L	I	L	S	W	P	T	D	P	D	E	W	T	M	H	R	V	T	S	W	F	K	F	H	D	F	P	E	S	W	165	
s1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s5	27	S	K	L	V	K	R	L	S	S	H	S	H	K	L	S	R	S	D	L	K	A	L	G	G	S	E	T	I	S	D	G	P	59	
s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s8	166	I	L	F	F	K	K	H	Q	L	F	G	H	R	F	I	K	L	L	A	Y	D	N	F	A	V	E	K	Y	L	P	Q	T	198	
s1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
s5	60	S	Q	L	T	F	K	D	R	Y	V	F	N	E	S	L	Y	L	K	K	L	K	K	T	A	L	D	D	Y	Y	T	R	G	I	92

FIG. 7C

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FIG. 7D

[illegible]

FIG. 7E

[illegible]

FIG. 7G

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

[illegible]

SUBSTITUTE SHEET (RULE 26)

[illegible][illegible]

FIG. 7I

s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s2	27	QNN	-	I	EGRHLNHL	TLP	LKDL	-	-	-	-	-	GIENTA	52				
s6	44	CNLVTEEEI	KYLDKDILIAL	-	-	-	-	-	-	-	-	-	GVNKIGD	70				
s8	589	TKLGINHKNVTFHMTDFDCDI	-	-	-	-	-	-	-	-	-	-	GAAIPD	615				
s1	1	-	-	-	-	-	-	-	-	-	-	-	-	0				
s5	474	NLKLI DSSKQNFKAPDLLKYWDHLLKNTGHIYN	-	-	-	-	-	-	-	-	-	-	-	506				
s3	1	-	-	-	-	-	-	-	-	-	-	-	-	0				
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	0				
s9	1	-	-	-	-	-	-	-	-	-	-	-	-	0				
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	0				
s2	53	-	KGKQFLK	-	-	-	-	-	-	-	-	QRDYLR	-	66				
s6	71	RKILRK	-	-	-	-	-	-	-	-	-	SFSFQDKRIEQ	89					
s8	616	DTLEFLKKSLFLNTSGKIYIKDQMKLQQKPAPA	648															

FIG. 7J

Age	Sex	Height	Weight	Temp.	Pulse	Respiration	BP	Sp. Grav.	Urine	Stool	Notes
10	M	50	110	98.6	100	20	110/70	1.020	Normal	Normal	Good
11	F	48	100	98.4	90	18	100/60	1.018	Normal	Normal	Good
12	M	52	120	98.8	110	22	120/80	1.022	Normal	Normal	Good
13	F	50	110	98.6	100	20	110/70	1.020	Normal	Normal	Good
14	M	54	130	99.0	120	24	130/90	1.024	Normal	Normal	Good
15	F	52	120	98.8	110	22	120/80	1.022	Normal	Normal	Good
16	M	56	140	99.2	130	26	140/100	1.026	Normal	Normal	Good
17	F	54	130	99.0	120	24	130/90	1.024	Normal	Normal	Good
18	M	58	150	99.4	140	28	150/110	1.028	Normal	Normal	Good
19	F	56	140	99.2	130	26	140/100	1.026	Normal	Normal	Good
20	M	60	160	99.6	150	30	160/120	1.030	Normal	Normal	Good
21	F	58	150	99.4	140	28	150/110	1.028	Normal	Normal	Good
22	M	62	170	99.8	160	32	170/130	1.032	Normal	Normal	Good
23	F	60	160	99.6	150	30	160/120	1.030	Normal	Normal	Good
24	M	64	180	100.0	170	34	180/140	1.034	Normal	Normal	Good
25	F	62	170	99.8	160	32	170/130	1.032	Normal	Normal	Good
26	M	66	190	100.2	180	36	190/150	1.036	Normal	Normal	Good
27	F	64	180	100.0	170	34	180/140	1.034	Normal	Normal	Good
28	M	68	200	100.4	190	38	200/160	1.038	Normal	Normal	Good
29	F	66	190	100.2	180	36	190/150	1.036	Normal	Normal	Good
30	M	70	210	100.6	200	40	210/170	1.040	Normal	Normal	Good
31	F	68	200	100.4	190	38	200/160	1.038	Normal	Normal	Good
32	M	72	220	100.8	210	42	220/180	1.042	Normal	Normal	Good
33	F	70	210	100.6	200	40	210/170	1.040	Normal	Normal	Good
34	M	74	230	101.0	220	44	230/190	1.044	Normal	Normal	Good
35	F	72	220	100.8	210	42	220/180	1.042	Normal	Normal	Good
36	M	76	240	101.2	230	46	240/200	1.046	Normal	Normal	Good
37	F	74	230	101.0	220	44	230/190	1.044	Normal	Normal	Good
38	M	78	250	101.4	240	48	250/210	1.048	Normal	Normal	Good
39	F	76	240	101.2	230	46	240/200	1.046	Normal	Normal	Good
40	M	80	260	101.6	250	50	260/220	1.050	Normal	Normal	Good
41	F	78	250	101.4	240	48	250/210	1.048	Normal	Normal	Good
42	M	82	270	101.8	260	52	270/230	1.052	Normal	Normal	Good
43	F	80	260	101.6	250	50	260/220	1.050	Normal	Normal	Good
44	M	84	280	102.0	270	54	280/240	1.054	Normal	Normal	Good
45	F	82	270	101.8	260	52	270/230	1.052	Normal	Normal	Good
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FIG. 7K

[illegible]

FIG. 7L

s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s9	14	S	A	V	G	Q	K	E	L	P	K	P	K	E	T	P	P
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s2	148	K	E	K	P	C	P	S	F	E	D	L	R	R	S	-	W
s6	213	D	Q	T	-	P	S	D	K	A	I	S	T	S	-	K	K
s8	781	K	D	E	G	T	E	I	D	F	N	H	R	R	E	-	S
s1	79	R	E	K	T	G	K	G	L	S	A	T	R	L	S	A	S
s5	670	K	G	E	D	S	K	G	I	P	Y	R	V	V	A	N	S
s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s9	47	K	S	P	V	F	C	G	K	W	E	I	L	N	D	V	I
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
s2	180	P	K	L	S	S	-	-	V	L	P	T	S	T	Q	K	R
s6	241	S	S	S	N	-	-	-	L	L	A	-	-	-	Q	N	K
s8	813	A	N	T	S	P	Q	R	T	L	S	T	S	K	Q	N	K
s1	112	S	T	T	T	E	Q	P	K	P	A	V	Q	T	K	G	R
s5	703	S	T	D	P	F	D	Q	H	L	D	-	E	K	N	N	E

FIG. 7M

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s3 1 - - - - - 0
 s4 1 - - - - - 0
 s9 80 I I A Q A E C E N S Q E F S P T F S E R I F I A G S K Q Y S Q S E 112
 s7 1 - - - - - 0
 s2 207 - - - - - Q R P P S E L I N S R I S D 220
 s6 269 D R I R Q I F N - - - - - Q R P P S E F I S T N L A G - 290
 s8 846 K P L P P Q L L S S P I E A S S S P D S L T S S Y T P A S T H V 878
 s1 145 F P A P S A P C S S A P S V P D I S K H R P Q A - F V P C K I P S 176
 s5 735 Y P G E P V V W D G P V Y K L P G N N L F A S N E M D L G K I G N 767

 s3 1 - - - - - 0
 s4 1 - - - - - 0
 s9 113 S L D Q I P N N V A H A T E G K M A R V C W K G K R R S K A R K K 145
 s7 1 - - - - - 0
 s2 221 - - - - - F F P D - - - - - H Q P K L L E K T I S N S L R R N 241
 s6 291 - - - - - Y F P H - - - - - T D M K R L Q K T M R E S F R H S A 312
 s8 879 - - - - - L I P Q - P Y K G A N D V M R R L K T D Q D S T S T S 904

FIG. 7N

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Year	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

S3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0														
S4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0														
S9	146	R	K	K	S	K	S	L	A	H	A	G	V	A	L	A	K	P	L	P	R	T	P	E	Q	E	S	C	T	I	P	V	178		
S7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0			
S2	242	L	S	I	R	T	S	Q	G	H	N	L	G	-	-	-	N	F	G	Q	E	I	L	P	R	S	-	-	-	R	R	A	267		
S6	313	R	L	S	I	A	Q	R	R	P	L	S	A	E	S	N	I	G	D	I	L	L	K	H	S	N	-	-	-	-	-	A	V	340	
S8	905	P	S	L	K	M	K	Q	K	V	N	R	S	N	S	T	V	S	T	S	N	S	I	F	Y	S	P	S	P	L	L	K	R	G	937
S1	204	P	V	F	T	Q	S	R	P	P	P	S	S	N	I	H	R	P	K	P	S	R	P	V	P	G	S	T	S	K	L	G	D	A	236
S5	801	E	K	R	C	S	L	N	S	I	E	S	S	L	Q	K	I	N	K	A	Y	K	L	T	Y	T	V	L	N	N	Y	K	G	833	
S3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
S4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
S9	179	Q	E	D	E	S	P	L	G	A	P	Y	V	R	N	T	P	Q	F	T	K	P	L	K	E	P	G	L	G	Q	L	C	F	K	211
S7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
S2	268	R	P	S	E	L	V	C	P	L	S	S	L	R	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	V	A	284	
S6	341	D	M	A	L	L	Q	G	L	D	Q	T	R	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	S	K	L	357
S8	938	N	S	K	R	V	S	S	T	S	A	A	D	I	F	E	E	N	D	I	T	F	A	D	A	P	P	M	F	D	S	D	D	D	970
S1	237	T	K	S	S	M	T	L	D	L	G	S	A	S	R	C	D	D	S	F	G	G	G	N	S	G	N	A	V	I	P	S	D	269	
S5	834	I	L	G	S	F	M	K	Q	C	P	G	N	E	L	L	N	S	I	F	M	F	G	R	D	F	G	R	S	F	L	K	Y	N	866

FIG. 70

[illegible][illegible]

FIG. 7P

550070" 92955T 50

S3	12	EE	DL	LN	NH	NV	SE	VL	DI	ME	NL	YA	SA	EE	PA	VA	VE	41
S4	12	EE	DL	LN	NH	NV	SD	VL	DI	ME	NL	YA	SA	EE	PA	VA	VE	41
S9	278	H	PL	ES	FG	KL	AC	VD	SQ	KP	PH	LS	SS	EE	LA	VD	SP	310
S7	1	-	-	-	-	-	-	-	-	-	-	-	-	EE	LA	VD	SP	23
S2	351	Q	VL	S	-	-	-	-	-	-	-	-	-	EE	LA	VD	SP	367
S6	369	-	-	-	-	-	-	-	-	-	-	-	-	EE	LA	VD	SP	301
S8	1037	Q	N	L	E	K	F	E	P	R	A	N	L	D	K	P	T	1069
S1	336	K	C	K	E	K	M	E	A	E	E	E	A	L	A	A	M	368
S5	932	E	L	K	E	R	V	-	-	-	-	-	-	-	-	-	-	948
S3	45	S	L	M	T	M	C	P	D	S	N	Q	N	K	E	H	S	74
S4	45	S	L	M	T	M	C	P	D	S	N	Q	N	K	E	H	S	74
S9	311	K	P	L	B	G	P	H	L	E	P	S	C	L	S	R	G	343
S7	24	V	R	R	S	L	V	F	K	Q	S	G	D	F	D	T	G	56
S2	368	S	P	L	S	P	T	S	T	S	E	D	-	-	-	-	-	379
S6	302	S	L	S	V	E	S	G	E	E	E	D	-	-	-	-	-	392
S8	1070	S	P	K	N	V	A	S	S	R	T	E	P	S	T	P	S	1102
S1	369	Q	V	E	N	G	E	D	I	I	I	Q	O	D	T	P	E	390
S5	949	D	V	M	G	A	R	A	T	E	A	E	N	G	M	Q	Q	981

FIG. 7Q

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664070 22333550

S3	75	S	V	R	Y	G	T	V	E	D	L	-	L	A	F	A	N	H	I	S	N	T	T	K	H	E	Y	R	C	R	P	-	-	103		
S4	75	S	V	R	Y	G	T	V	E	D	L	-	L	A	F	A	N	H	I	S	N	T	A	K	H	E	Y	R	C	R	P	-	-	103		
S9	344	S	V	S	S	Q	A	H	S	L	-	T	S	L	A	K	T	W	A	R	S	I	S	K	A	E	L	P	A	K	A	R	K	D	89	
S7	57	S	I	R	K	S	S	I	G	I	F	S	K	A	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	392		
S2	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	412		
S6	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1135		
S8	1103	G	K	N	K	P	L	N	Q	A	K	T	P	K	R	T	K	T	I	R	E	D	I	A	E	-	-	-	-	-	-	-	-	-	402	
S1	391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1014		
S5	982	E	I	I	N	S	R	L	R	L	E	A	I	K	T	L	E	K	T	M	K	R	N	P	R	Q	M	G	K	V	L	D	A	T	D	1014
S3	104	Q	E	S	G	I	L	L	N	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131		
S4	104	Q	E	S	G	I	L	L	N	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131		
S9	376	D	N	E	G	V	L	L	T	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	401		
S7	90	D	T	P	P	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94		
S2	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	393		
S6	413	K	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	414		
S8	1136	K	L	K	R	O	N	T	K	M	W	G	T	R	M	V	E	V	T	E	N	H	M	V	S	I	N	K	A	K	N	S	K	G	1168	

FIG. 7R

664070 24953750

s3	132	WK	L	T	Y	R	S	G	S	G	F	V	P	R	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	164			
s4	132	WK	L	T	Y	R	N	G	S	D	I	F	T	P	R	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	164		
s9	402	H	Q	L	R	-	-	-	-	-	-	L	G	R	G	S	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	426		
s7	95	-	-	-	-	-	-	R	W	R	K	G	E	M	I	G	C	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	122
s2	394	-	-	-	-	-	-	-	W	I	R	G	A	L	I	G	S	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	420
s6	415	-	-	-	-	-	-	-	W	L	K	G	A	C	I	G	S	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	442
s8	1169	-	-	-	-	-	-	-	W	L	K	G	A	C	I	G	S	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	1201
s1	403	-	-	-	-	-	-	-	W	L	K	G	A	C	I	G	S	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	429
s5	1028	-	-	-	-	-	-	-	W	L	K	G	A	C	I	G	S	G	A	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M	1060
		S	N	V	S	M	R	W	Q	K	R	S	F	I	G	G	G	T	F	G	K	V	Y	L	A	Q	D	M	K	T	K	K	R	M		
s3	165	A	C	K	L	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	
s4	165	A	C	K	L	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	
s9	427	A	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	431	
s7	123	A	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	
s2	421	A	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	425	
s6	443	V	K	Q	V	E	I	K	N	N	I	G	V	P	T	D	N	K	Q	A	N	S	D	E	N	N	E	Q	E	E	Q	Q	Q	Q	Q	475
s8	1202	A	V	K	K	V	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1207	
s1	430	A	V	K	K	V	T	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436	
s5	1061	A	V	K	K	V	I	K	I	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1068

FIG. 7S

[illegible]

s3	170	- - - - -	PV DQ F K P S	- - - - -	D V E M A I L
s4	170	- - - - -	PV DQ F K P S	- - - - -	D V E M A I L
s9	432	- - - - -	R L E V F R A E	- - - - -	E E Y N A I L
s7	128	- - - - -	S I A M N G A S	R E R A Q A H V R E L E E	E E Y N A I L
s2	426	- - - - -	I L D S V S E S K	- - - - -	E E Y N A I L
s6	476	E K I E D V G A V	S H P K T N Q N I	H R K M V D A L Q H E M N L	E E Y N A I L
s8	1208	- - - - -	V P K Y S \$ Q N E A I	L S T V E A L R S	E E Y N A I L
s1	437	- - - - -	V R N T S \$ E Q E	- - - - -	E E Y N A I L
s5	1069	- - - - -	- - - - -	D T T T M K K I F P L I K E	E E Y N A I L

s3	182	QAC	F	R	H	E	N	I	A	E	L	L	Y	G	A	V	L	W	G	E	T	V	H	L	E	M	E	A	G	G	S	214	
s4	182	QAC	F	R	H	E	N	I	A	E	L	L	Y	G	A	V	L	W	G	E	T	V	H	L	E	M	E	A	G	G	S	214	
s9	444	CAC	L	T	S	P	R	I	V	P	R	Y	L	G	A	V	R	E	G	P	W	N	I	L	E	M	E	A	G	G	S	476	
s7	153	L	K	N	L	S	H	P	N	I	V	Q	Y	L	G	A	V	R	E	G	P	W	N	I	L	E	M	E	A	G	G	S	185
s2	451	L	Q	E	L	S	H	E	H	I	V	Q	Y	L	G	A	V	R	E	G	P	W	N	I	L	E	M	E	A	G	G	S	483
s6	509	K	E	L	H	H	E	N	I	V	T	Y	Y	G	A	S	Q	E	G	N	L	N	I	F	L	E	Y	V	P	G	S	541	
s8	1232	L	K	D	L	D	H	L	N	I	V	Q	Y	L	G	F	E	N	K	N	I	Y	S	L	F	L	E	Y	V	A	G	S	1264

FIG. 7T

664060 02955150

S3	215	V L E K L	E S C G P M R E F E I	- W V T K H V L	K G L D F L H S	246
S4	215	V L E K L	E S C G P M R E F E I	- W V T K H V L	K G L D F L H S	246
S9	477	L G Q L L	V K E G G C L P E S R A I	- Y Y L G Q A L	E E Y L L H S	508
S7	186	L S G L L	V K E G G C L P E S R A I	- Y Y L G Q A L	E E Y L L H S	217
S2	484	V A S L L	S M L N N Y C P F E S L I	- F T R Q I L	L H K K	515
S6	542	S S L L L	S M L N N Y C P F E S L I	- F T R Q I L	L H K K	573
S8	1265	V G S L L	I R M Y G R F E D E P L I	- L T T Q V	A Y L H S	1296
S1	491	V A S L L	S M L N N Y C P F E S L I	- F T R Q I L	L H K K	522
S5	1120	V A S L L	S M L N N Y C P F E S L I	- F T R Q I L	L H K K	1151
S3	247	K K V I	H H D I	K P S N I	V F M S	275
S4	247	K K V I	H H D I	K P S N I	V F M S	275
S9	509	R R I M	H G D I	K P S N I	V F M S	541
S7	218	R R I M	H G D I	K P S N I	V F M S	249
S2	516	R R I M	H G D I	K P S N I	V F M S	547
S6	574	R R I M	H G D I	K P S N I	V F M S	604
S8	1297	R R I M	H G D I	K P S N I	V F M S	1327
S1	523	R R I M	H G D I	K P S N I	V F M S	555
S5	1152	R R I M	H G D I	K P S N I	V F M S	1183

FIG. 7U

[illegible]

S3	276	-	-	QM	T	E	D	V	Y	L	P	K	-	-	-	-	-	-	-	D	L	R	G	T	I	H	M	294	
S4	276	-	-	QM	T	E	D	V	Y	F	P	K	-	-	-	-	-	-	-	D	L	R	G	T	I	H	M	294	
S9	542	Q	P	D	G	L	G	K	S	L	L	T	G	D	-	-	-	-	-	Y	I	P	G	T	I	H	M	563	
S7	250	V	E	L	A	T	M	T	G	-	-	A	K	-	-	-	-	-	-	S	N	K	G	T	I	H	M	268	
S2	548	E	L	N	S	T	S	T	K	T	G	G	A	R	P	-	-	-	-	S	F	Q	G	S	S	F	W	M	570
S6	605	-	-	S	P	L	N	K	K	Q	N	K	R	A	-	-	-	-	-	S	L	Q	G	S	V	F	W	M	625
S8	1328	-	-	-	S	K	D	I	Y	S	N	S	D	M	-	-	-	-	-	T	M	R	G	T	I	H	M	1346	
S1	556	A	-	S	K	G	T	G	A	G	E	F	Q	G	-	-	-	-	-	Q	L	L	G	T	I	H	M	576	
S5	1184	V	G	S	R	T	R	T	V	R	N	A	A	V	Q	D	F	G	V	E	T	K	S	L	N	E	M	M	1216

40/46

s3	295	S	P	V	L	O	R	-	-	G	H	S	T	K	A	D	Y	S	L	G	A	T	L	H	M	Q	T	G	I	324					
s4	295	S	P	V	L	O	R	-	-	G	H	S	T	K	A	D	Y	S	L	G	A	T	L	H	M	Q	T	G	I	324					
s9	564	A	P	V	V	L	G	H	-	-	S	C	D	A	K	V	D	W	S	S	G	C	M	L	H	M	Q	T	G	I	593				
s7	269	A	P	V	V	L	Q	T	-	-	G	H	S	F	S	A	D	W	S	V	G	C	T	L	H	M	Q	T	G	I	298				
s2	571	A	P	V	V	V	K	-	Q	T	M	H	T	-	-	E	K	T	D	W	S	L	G	C	L	V	E	M	L	T	G	I	600		
s6	626	P	E	V	V	K	-	Q	T	A	T	T	-	-	A	K	A	D	I	W	S	T	G	C	V	V	E	M	F	T	G	K	H	655	
s8	1347	A	P	E	M	V	D	T	K	Q	G	Y	S	-	-	A	K	V	D	I	W	S	L	G	C	I	V	E	M	F	A	G	I	K	1377

FIG. 7V

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667070 32955160

S3	325	P	P	V	-	-	K	R	V	P	R	S	A	Y	P	S	Y	Y	Y	H	K	S	A	G	355
S4	325	P	P	V	-	-	K	R	V	P	R	S	A	Y	P	S	Y	Y	Y	H	K	S	A	G	355
S9	594	H	P	T	-	-	Q	F	F	R	G	P	L	C	-	-	-	-	-	A	S	E	P	P	620
S7	299	H	P	S	-	-	Q	Q	Y	Q	Q	M	Q	A	-	-	-	-	-	A	S	E	P	P	329
S2	601	H	P	Y	-	-	P	N	G	Q	M	Q	A	A	-	-	-	-	-	A	S	E	P	P	625
S6	656	P	F	-	-	-	P	D	F	S	Q	M	Q	A	A	-	-	-	-	A	S	E	P	P	680
S8	1378	R	P	W	-	-	-	S	N	L	S	-	-	-	-	-	-	-	-	A	S	E	P	P	1407
S1	607	R	P	W	-	-	-	N	A	E	K	H	-	-	-	-	-	-	-	A	S	E	P	P	635
S5	1250	R	P	W	-	-	-	S	N	L	D	N	-	-	-	-	-	-	-	A	S	E	P	P	1277
S3	356	D	C	S	-	-	P	G	M	R	E	-	-	-	-	-	-	-	-	A	S	E	P	P	382
S4	356	D	C	S	-	-	P	G	M	R	E	-	-	-	-	-	-	-	-	A	S	E	P	P	382
S9	621	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	653
S7	330	I	E	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	358
S2	626	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	658
S6	681	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	713
S8	1408	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	1440
S1	636	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	668
S5	1278	S	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	S	E	P	P	1310

FIG. 7W

FIG. 7X

43/46

65407070 22933750

s3	418	E	L	P	E	N	A	D	S	S	C	T	G	S	T	E	E	S	E	M	V	L	R	C	R	C	E	S	L	Y	L	E	D	E	G	A	450
s4	418	E	L	P	E	N	A	D	S	S	C	T	G	S	T	E	E	S	E	M	V	L	R	C	R	C	E	S	L	Y	L	E	D	E	G	A	450
s9	720	E	P	I	P	E	P	N	K	S	P	L	T	L	S	K	E	E	S	G	M	W	E	P	L	P	E	S	L	Y	L	E	D	E	P	A	752
s7	425	E	S	L	W	K	L	G	N	S	D	D	D	M	C	Q	M	D	N	D	E	F	M	F	G	A	S	V	K	C	S	S	D	E	457		
s2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	659		
s6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717		
s8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1478		
s1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	572		
s5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1314		
s3	451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	461		
s4	451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	461		
s9	753	A	R	N	P	S	P	E	R	K	A	T	V	P	E	Q	E	L	Q	Q	L	E	E	L	F	E	L	S	I	S	Q	P	P	P	P	785	
s7	458	H	S	P	A	N	Y	K	S	F	N	P	M	C	E	P	D	N	D	W	P	C	K	E	D	E	S	P	E	L	K	S	Q	Q	490		
s2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	659		
s6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717		
s8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1478		
s1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	672		
s5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1314		

s3	451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	461
s4	451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	461	
s9	753	A	R	N	P	S	P	E	R	K	A	T	V	P	E	Q	E	L	Q	Q	L	E	E	L	F	E	L	S	I	S	Q	P	P	P	785	
s7	458	H	S	P	A	N	Y	K	S	F	N	P	M	C	E	P	D	N	D	W	P	C	K	E	D	E	S	P	E	L	K	S	Q	Q	490	
s2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	659	
s6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717	
s8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1478	
s1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	672	
s5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1314	

FIG. 7Y

SUBSTITUTE SHEET (RULE 26)

SUBSTITUTE SHEET (RULE 26)

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

[illegible]

FIG. 7BB